

Historic, archived document

Do not assume content reflects current
scientific knowledge, policies, or practices.

UNITED STATES
DEPARTMENT OF AGRICULTURE
LIBRARY



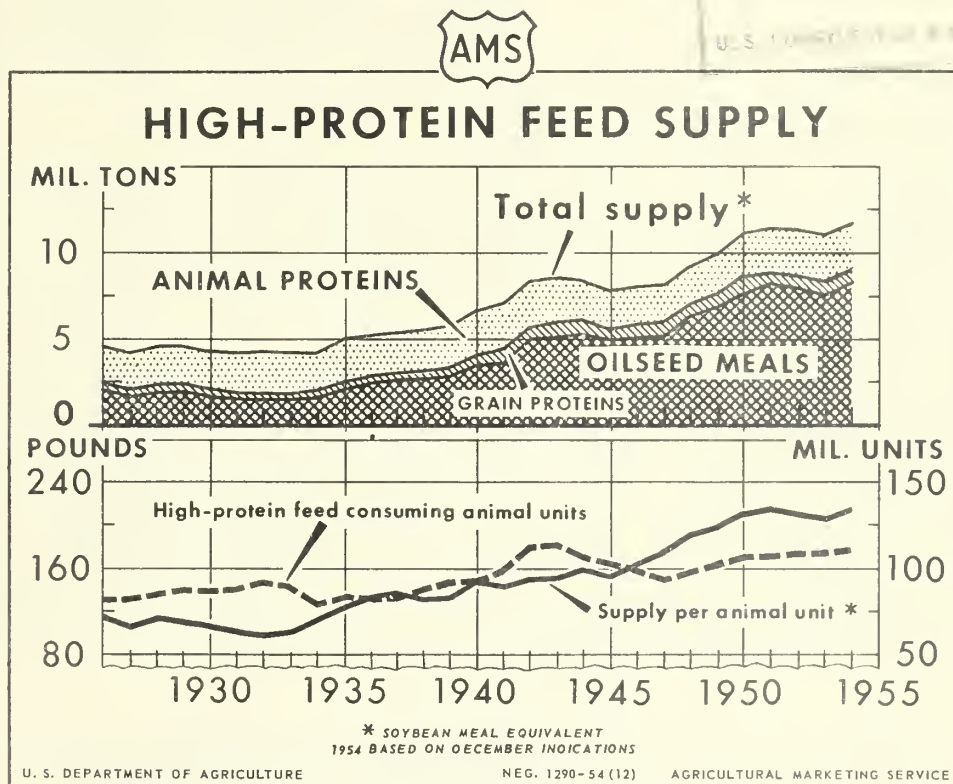
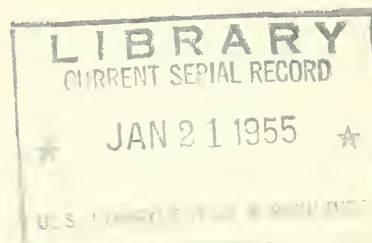
Reserve
BOOK NUMBER 1.941
889013 S8F32
FDS 149-160
1955-1956

come
941
81-32
The

FEED SITUATION

FDS-149

FOR RELEASE
JAN. 4, P. M.
1955



The marked upward trend in the supply of high-protein feeds, both in total and per animal unit over the past 2 decades, indicates an improvement in the protein adequacy of livestock rations. However, there has been an increase in the quantity of protein feed required per animal to match the heavier feeding of lower protein feeds

and to offset the decline in protein content of corn. Further improvement is needed, especially in some areas of the country. Revised series of total high-protein feed supplies and supplies per animal unit have been recently developed and are presented in this issue.

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

Table 1.- Statistical Summary

PRICES								
Item	Unit	1952		1953		1954		
		Oct.	Nov.	Oct.	Nov.	Sept.	Oct.	Nov.
		Cents	Cents	Cents	Cents	Cents	Cents	Cents
Grains and Hay								
Corn, No. 3 Yellow, Chicago	Bushel	158.6	157.5	146.1	144.8	163.9	154.0	148.1
Price received by farmers, U. S.	Bushel	153.0	145.0	134.0	133.0	153.0	145.0	137.0
Oats, No. 2 White, Chicago	Bushel	90.7	92.3	80.2	80.2	78.6	82.0	88.5
No. 2 White, Minneapolis	Bushel	87.5	87.8	77.6	77.3	74.8	76.4	80.1
Price received by farmers, U. S.	Bushel	82.8	84.5	72.7	74.5	71.1	73.1	76.1
Barley, No. 3, Minneapolis	Bushel	154.5	150.5	141.7	143.8	132.8	137.8	136.4
Price received by farmers, U. S.	Bushel	142.0	143.0	112.0	113.0	105.0	108.0	108.0
Grain sorghums, price received by farmers, U. S.	100 pounds	287.0	282.0	219.0	218.0	216.0	214.0	216.0
Wheat, No. 2 Hard Winter, Kansas City	Bushel	241.6	245.8	228.8	233.7	238.9	241.1	243.9
		Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
Hay, No. 1 Alfalfa, baled, Kansas City	Ton	37.75	37.75	30.75	30.75	28.00	28.80	31.25
Price received by farmers, baled, U. S.	Ton	25.60	26.00	21.20	22.00	22.00	22.30	22.90
Byproduct Feeds (bagged)								
Standard bran, Minneapolis	Ton	54.75	54.10	39.40	41.10	39.50	40.00	43.10
Buffalo	Ton	60.00	58.90	46.90	46.10	44.60	45.10	47.70
Price paid by farmers, U. S.	100 pounds	3.71	3.70	3.05	2.99	3.01	2.98	3.01
Standard middlings, Minneapolis	Ton	55.40	54.90	40.25	40.60	41.10	41.10	43.60
Buffalo	Ton	60.00	58.75	47.25	46.25	48.90	48.25	48.90
Price paid by farmers, U. S.	100 pounds	3.90	3.88	3.18	3.10	3.18	3.15	3.17
Cottonseed meal, 41 percent protein, Memphis ..	Ton	85.60	85.95	55.75	55.80	65.60	68.25	69.45
Lined meal, 36 percent protein, Minneapolis ..	Ton	83.25	83.25	63.50	63.25	64.75	67.00	69.60
28 percent protein, San Francisco ..	Ton	93.50	92.40	78.80	78.75	73.00	72.00	77.35
Soybean meal, 44 percent protein, Chicago	Ton	93.70	88.00	68.55	71.20	78.90	76.00	79.05
Price paid by farmers, U. S.	100 pounds	5.80	5.46	4.46	4.35	5.52	4.81	4.77
Peanut meal, 45 percent protein, S. E. milling points	Ton	93.15	90.30	66.10	66.75	78.90	76.50	80.00
White hominy feed, Chicago	Ton	61.05	61.30	54.20	54.25	60.00	57.25	57.10
Gluten feed, 23 percent protein, Chicago	Ton	67.00	67.00	48.00	48.00	53.50	52.00	53.20
Tankage digester, 60 percent protein, Chicago ..	Ton	115.30	113.05	93.00	88.15	106.90	101.55	95.05
Meat scraps, 50 percent protein, Chicago	Ton	113.10	107.80	90.90	83.90	102.40	92.20	85.65
Fish meal, 67 percent protein, San Francisco ..	Ton	160.75	160.75	147.40	149.90	149.10	148.70	151.80
Alfalfa meal, No. 1 fine, Kansas City	Ton	56.75	54.00	40.00	40.50	43.50	43.75	45.00
Mixed dairy feed, 16 percent protein, price paid by farmers, U. S.	100 pounds	4.31	4.27	3.81	3.79	3.84	3.80	3.82
Laying mash, price paid by farmers, U. S.	100 pounds	5.27	5.20	4.73	4.66	4.90	4.77	4.76
Scratch feed, price paid by farmers, U. S.	100 pounds	4.60	4.54	4.28	4.22	4.30	4.27	4.27

INDEX NUMBERS OF PRICES

		Percent	Percent	Percent	Percent	Percent	Percent	Percent
Feed grains, price received by farmers, U. S. .	:1910-14=100:	231	223	199	199	217	210	202
Eleven principal high-protein feeds, terminal markets	:1935-39=100:	284	273	210	210	235	230	234
Five oilseed meals	:1935-39=100:	292	278	210	213	238	234	240
Tankage, meat scraps, and fish meal	:1935-39=100:	260	249	210	203	228	221	212
Gluten feed, brewers' dried grains, and distillers' dried grains	:1935-39=100:	271	271	208	205	225	222	226
Feed, price paid by farmers, U. S.	:1910-14=100:	249	246	216	214	226	222	222

LIVESTOCK-FEED PRICE RATIOS 1/

(November average)								
Hog-corn, Chicago 2/.....	1933-52=12.8	Bushel	11.9	10.8	14.7	14.4	12.2	12.0
Hog-corn, U. S. farm price	1933-52=13.3	Bushel	12.1	11.4	15.9	15.3	12.9	13.6
Beef-steer-corn, Chicago 3/.....	1933-52=17.0	Bushel	20.2	19.9	17.4	17.1	15.3	16.5
Butterfat-feed, U. S.	1933-52=24.8	Pound	22.3	22.4	22.8	23.2	18.7	19.8
Milk-feed, U. S.	1933-52=1.42	Pound	1.39	1.44	1.40	1.45	1.23	1.32
Egg-feed, U. S.	1943-52=14.2	Pound	12.1	12.7	14.3	13.5	8.7	8.5
Farm chicken-feed, U. S. 4/.....	1943-52=6.9	Pound	4.9	5.3	5.4	5.6	3.9	3.7
Commercial broiler-feed, U. S. 5/.....	----	Pound	----	----	5.2	5.1	4.4	4.0

1/ Units of corn or other concentrate ration equal in value to 100 pounds of hog or beef-steer, 1 pound of chicken, butterfat, or milk, or 1 dozen eggs. 2/ Based on packer and shipper purchases of hogs and No. 3 Yellow corn. 3/ Based on price of beef-steers sold out of first hands for slaughter, and No. 3 Yellow corn. 4/ New series; for earlier years see Agricultural Prices, April 1953. 5/ Not reported prior to January 1953.

Prices compiled from Wall Street Journal, Chicago edition, Minneapolis Daily Market Record, Kansas City Grain Market Review, and reports of the Agricultural Marketing Service.

- - - - -
T H E F E E D S I T U A T I O N
- - - - -

Approved by the Outlook and Situation Board, December 28, 1954

SUMMARY

A record supply of feed grains and other concentrates is available for the 1954-55 season, and the supply is near record per animal unit. The total 1954 feed grain crop of nearly 122 million tons was among the largest in history. The carryover of feed grains and the supply of by-product feeds are the largest of record. The 1954-55 feed concentrate supply totals 181 million tons, 5 percent larger than in 1953-54.

Allowing for a prospective 3 percent increase in grain-consuming livestock in 1954-55, the feed concentrate supply per animal unit is a little larger than in 1953-54 and near the 1950 record. Domestic utilization of feed grains is expected to increase in 1954-55, but supplies appear to be sufficient to meet increased requirements and leave a carryover at the close of the 1954-55 season equal to the record level at the beginning.

Although severe drought reduced production of feed crops over large areas of the country, the 1954 growing season was generally favorable for feed grains in the main producing area of the Midwest. The 1954-55 corn supply of 3,884 million bushels is a little smaller than last year, while supplies of oats, barley, and sorghum grains are much larger. Record quantities of oats and barley have been placed under price support through November 15, and a much larger quantity of sorghum grains than in the same period of 1953. A substantial increase in carryover stocks of these three grains is expected at the close of the 1954-55 season, but a smaller carryover of corn is in prospect.

The seasonal decline in corn prices this year was a little later than in 1953, largely because of the later harvesting and marketing of the crop. In the first half of December, market prices were lower than a year earlier. A larger quantity of lower-quality corn is coming to market this year, and there is a much greater discount for the lower grades of corn than in 1953. Corn prices are expected to advance seasonally this winter and spring. Oats prices are at about the same level as a year earlier, while barley and sorghum grains are a little lower. Soybean meal prices are lower this winter relative to most other high-protein feeds than a year ago, reflecting the much larger supplies this year.

The Department of Agriculture recently announced national average price supports for 1955-crop oats at 61 cents per bushel, barley 94 cents per bushel, and sorghum grain at \$1.78 per 100 pounds. The supports are all lower than in 1954, reflecting the reduction in support levels from 85 percent of the parity price for the 1954 crops to 70 percent for the 1955 crops. Cross-compliance among individual crop acreage allotments has been removed as a requirement for eligibility for price supports.

The estimated supply of high-protein feeds for 1954-55 is a little larger than last year, both in total and per animal. New series of high-protein feed supplies and high-protein feed-consuming animal units have been developed and are presented for the first time in this issue.

CURRENT SITUATION AND OUTLOOK

Record Supply of Feed Concentrates for 1954-55

The total supply of all feed concentrates for 1954-55 is estimated at about 181 million tons, the largest on record and 5 percent larger than in 1953-54. Farmers are expanding livestock production this year, principally hogs, and a 3 percent increase in grain-consuming animal units is in prospect for 1954-55. Allowing for this increase, the supply of feed concentrates per animal unit is a little larger than last year and only slightly below the 1950-51 record.

The 1954 production of feed grains, estimated in the December Annual Crop Summary at 121.6 million tons, was a little larger than in 1953 and 4 percent above the 1947-51 average. Above-average production occurred this year in spite of severe drought over wide areas of the country. Another favorable growing season in the main feed grain-producing area of the Midwest more than offset the drought-reduced production in large areas of the South and Southwest. The carryover of feed grains into 1954-55 totaled 31.8 million tons, the largest on record. Another big supply of byproduct feeds is in prospect for 1954-55 and wheat and rye feeding probably will continue near the 1953-54 level.

Utilization of feed grains and other concentrates in 1954-55 is expected to be a little heavier than in 1953-54. If the rate of feeding per animal unit is about the same as the 1947-51 average, nearly 131 million tons of feed concentrates would be fed in 1954-55, about 5 million tons more than in 1953-54. The quantity of feed grains used for food, industrial uses, and exports is expected to total about 17 million tons, which would make the total utilization of all feed concentrates to around 148 million tons. With this level of consumption, the carryover at the close of the 1954-55 season would equal the record of 32 million tons at the beginning of the year.

Corn Supply Smaller Than Last Year; Supplies of Other Feed Grains Much Larger

The total supply of the 4 feed grains for 1954-55 is estimated at 154.8 million tons, 8 million tons larger than last year and a little above the previous record of 1950. This year's supply includes a slightly smaller supply of corn than last year, but much larger supplies of oats, barley, and sorghum grains. The 31.8 million-ton carryover was the largest on record, while production has been exceeded in only 3 previous years. Imports of feed grains will be smaller than in 1953-54 as a result of import restrictions on oats and barley.

Table 2.- Feed concentrate balance, numbers of animal units, and feed per unit, United States, year beginning October, average 1947-51, and annual, 1949-54

Item	Average: 1947-51:	1949	1950	1951	1952	1953 1/	1954 2/
	Mil. tons	Mil. tons	Mil. tons	Mil. tons	Mil. tons	Mil. tons	Mil. tons
<u>Supply</u>							
Stocks beginning of year 3/	22.3	30.4	30.6	28.7	20.2	27.0	31.8
Production of feed grains:							
Corn	84.9	90.7	85.6	81.2	91.8	89.4	83.0
Oats	21.1	20.1	22.6	21.1	20.2	19.3	24.0
Barley	6.7	5.7	7.3	6.1	5.4	5.8	8.9
Sorghum grains	4.3	4.1	6.5	4.5	2.3	3.1	5.7
Total	117.0	120.6	122.0	112.9	119.7	117.6	121.6
Other grains fed 4/	4.4	4.5	4.0	4.4	5.5	4.8	4.4
Byproduct feeds fed	20.8	20.7	22.0	22.6	22.6	22.9	23.2
Total supply	164.5	176.2	178.6	168.6	168.0	172.3	181.0
<u>Utilization, October-September</u>							
Concentrates fed 5/							
Corn	74.2	79.4	77.6	79.0	72.9	75.4	76.5
Oats	19.2	18.4	19.9	20.4	18.6	18.8	20.5
Barley and sorghum grains	5.9	5.0	7.3	6.6	4.9	5.6	7.3
Wheat and rye	3.7	3.8	3.0	3.0	3.6	2.9	3.0
Oilseed cake and meal	7.8	7.9	8.7	9.1	8.9	8.6	9.2
Animal protein feeds	2.5	2.5	2.5	2.6	2.7	3.0	2.8
Other byproduct feeds	10.5	10.3	10.8	10.9	11.0	11.3	11.2
Total concentrates fed	123.8	127.3	129.8	131.6	122.6	125.6	130.5
Feed grains for seed, human food, industry, and export	17.2	17.2	20.4	17.1	17.0	16.0	17.4
Total utilization	141.0	144.5	150.2	148.7	139.6	141.6	147.9
Utilization adjusted to crop year basis	141.0	145.6	149.9	148.4	141.0	140.5	148.5
Stocks at end of crop year 2/	23.5	30.6	28.7	20.2	27.0	31.8	32.5
<u>Supply and utilization per animal unit</u>							
Total supply (Million tons)	164.5	176.2	178.6	168.6	168.0	172.3	181.0
Concentrates fed (Million tons)	123.8	127.3	129.8	131.6	122.6	125.6	130.5
Number of grain-consuming animal units fed annually (Millions)	165.3	166.1	172.3	174.2	170.4	167.6	173.
Supply per animal unit (Ton)	1.00	1.06	1.04	.97	.99	1.03	1.05
Concentrates fed per animal unit (Ton)	.75	.77	.75	.76	.72	.75	6/.75

1/ Preliminary. 2/ Preliminary estimates based on indications in December 1954.
 3/ Stocks in all positions. Corn and sorghum grain on October 1; oats and barley, July 1. 4/ Domestic wheat and rye and imported grains. 5/ Total quantities fed in the U. S., including domestically produced and imported grains and byproduct feeds. 6/ Assumes about the same rate of feeding per animal unit as in 1947-51.

The 1954-55 corn supply is now estimated at 3,884 million bushels, 78 million bushels less than last year, but nearly 300 million larger than the 1947-51 average. This includes a record carryover of 918 million bushels, this year's crop of 2,965 million bushels, and an allowance of 1 million bushels for imports. It is estimated that about 725 million bushels of the carryover were either under loan or owned by CCC, or in the process of delivery to CCC. This would mean that the supply of corn outside of the price support program at the beginning of the current marketing year totaled only about 3,150 million bushels compared with nearly 3,400 million bushels last year. Because of the smaller supply and increased feeding, "free" supplies available to the commercial market may become tight later in the season.

Total disappearance of corn during 1953-54 is now estimated at 3,044 million bushels, distributed as follows; 2,691 million for feed 258 million for food, industry, and seed; and 95 million for export. Total utilization of corn in 1954-55 is expected to be larger than last year, principally as the result of increasing production of hogs. Allowing for a little heavier disappearance this year, the carryover of corn next October 1 is expected to be somewhat smaller than the record carryover at the beginning of the 1954-55 season.

The total supply of oats for the July-June marketing year, including an allowance of 40 million bushels for imports, is estimated at 1,774 million bushels, 231 million bushels or 15 percent larger than in 1953-54, and 11 percent above the 1947-51 average. Domestic disappearance of oats this year is expected to be somewhat larger than the 1,306 million bushels consumed in 1953-54. A larger part of the oats consumed will be domestic oats, since imports are limited by import restrictions to only about one-half of the 80 million bushels imported in 1953-54. The carryover of oats on July 1, 1955, is expected to set a new record of over 300 million bushels, compared with 234 million bushels in 1954.

The total barley supply for 1954-55, including an allowance of around 30 million bushels for imports, is estimated at 471 million bushels, 42 percent larger than in 1953-54, and the third largest supply of record. The import limitation on barley restricts imports to 27.5 million bushels during the October-September feeding year. Imports of barley during July-September, 1954, which were not covered by this regulation, totaled 8 million bushels. In July-December a little under 20 million bushels were imported, compared with 26 million bushels in that period of 1953. Domestic disappearance and exports so far this year have been much larger than last year and probably will total considerably larger for the entire marketing year. Record stocks of barley also have gone under price support and a record carryover, probably totaling around 125 million bushels, is in prospect for July 1, 1955, much larger than the 71 million bushels in 1954.

The total supply of sorghum grains, now estimated at 226 million bushels, is much larger than the supplies of the last 2 years and second only to the 1950 record supply of 293 million bushels. Even though domestic consumption and exports are expected to increase this year, the carryover of sorghum grains next October 1 probably also will be substantially larger than the 22 million bushels carried over on October 1, 1954.

Table 3.- Feed grains: Supplies, United States, 1953 and 1954

Feed grain	1953				1954			
	Carry- over	Pro- duc- tion	Im- ports	Total supply	Carry- over	Pro- duc- tion	Im- ports	Total supply
	1/ Mil. bu.	1/ Mil. bu.	1/ Mil. bu.	1/ Mil. bu.	1/ Mil. bu.	2/ Mil. bu.	3/ Mil. bu.	1/ Mil. bu.
Corn	769	3,192	1	3,962	918	2,965	1	3,884
Oats	254	1,209	80	1,543	234	1,500	40	1,774
Barley	51	243	38	332	71	370	30	471
Sorghum grain	7	109	---	116	22	204	---	226
Total (mil. tons)	27.0	117.6	2.2	146.8	31.8	121.6	1.4	154.8

1/ Stocks in all positions of corn and sorghum grains on October 1 and oats and barley on July 1. 2/ Preliminary. 3/ Preliminary estimate based on indications in December 1954.

Table 4.- Corn, oats, and barley: Domestic disappearance, by quarters, United States, average 1947-51, annual 1951-53

Year beginning October	October- December 1/ Mil. bu.	January- March Mil. bu.	April- June Mil. bu.	July- September Mil. bu.	Total October- September Mil. bu.
Corn					
Average					
1947-51	1,217	729	514	448	2,908
1951	1,260	821	524	471	3,076
1952	1,162	729	501	466	2,858
1953 2/	1,248	666	565	469	2,948
Oats					
Average					
1947-51	262	350	290	437	1,339
1951	289	356	303	463	1,411
1952	256	369	266	413	1,304
1953 2/	263	355	275	431	1,324
Barley					
Average					
1947-51	60	65	59	72	256
1951	65	64	57	67	253
1952	55	63	51	64	233
1953 2/	66	55	58	86	265
Total (million tons)					
Average					
1947-51	39.7	27.6	20.5	21.2	109.0
1951	41.5	30.2	20.9	22.2	114.8
1952	37.9	27.8	19.5	21.3	106.5
1953 2/	40.7	25.7	21.6	22.1	110.1

1/ Includes all corn in silage, part of which is consumed after January 1.

2/ Preliminary.

July-September Disappearance of
Feed Grains Larger Than in 1953

The domestic disappearance of corn, oats, and barley during July-September totaled 22.1 million tons, 4 percent larger than in the same quarter of 1953. Disappearance of corn was about the same as last year, while disappearance of oats and barley was larger. Total disappearance of corn was estimated at 485 million bushels, including 469 million bushels used domestically, and 16 million bushels exported. Domestic disappearance was 5 percent above the 1948-52 average for the quarter and slightly larger than last year. Exports were considerably smaller than the 28 million bushels exported in that quarter of 1953.

Total utilization of oats was moderately larger and barley substantially larger in July-September this year than in that quarter of 1953. The increase reflects a much larger production this year and the relatively low prices during July-September. The 431 million bushels of oats consumed domestically included only 4 million bushels imported, while the 413 million consumed in that quarter of 1953 included imports of 22 million bushels. Domestic disappearance of barley totaled 86 million bushels, considerably larger than a year earlier and also above the 1948-52 average. In addition, nearly 10 million bushels were exported, compared with a little less than 6 million bushels in that quarter of 1953. About 8 million bushels of barley were imported during the quarter, 3 million less than a year earlier.

Market Receipts of Corn
Declined from November Peak

Market receipts of corn increased seasonally this fall with the harvesting of the 1954 crop. The heaviest weekly movement to the principal markets, however, came about 3 weeks later this year than in 1953. Harvesting of the 1954 crop was delayed by wet, cold weather this fall, in contrast to the very favorable weather for harvesting the 1952 and 1953 crops. This fall receipts of corn at the 12 primary markets reached a seasonal high of 14.6 million bushels for the week ending November 18. Since then receipts have declined, but in early December they remained higher than a year earlier. This year's receipts of corn at Chicago have been lower in quantity than in 1952 or 1953. During November this year only about a third of the carlot sales at Chicago graded No. 3 or better, compared with nearly two-thirds in 1952 and 1953.

Stocks of corn at terminal markets increased seasonally from around 18 million bushels in early October to 56 million bushels in late December. The total stocks include some corn owned by the Commodity Credit Corporation. As receipts drop off later in the marketing year, stocks at terminal markets are expected to decline, as they have in the past 2 or 3 seasons. In 1953-54, stocks declined from a peak of 47 million bushels in December to less than 12 million bushels by the following September.

Feed Prices Near Last
Year's Level

The general level of feed prices in the first half of December was not greatly different from a year earlier. During October and November prices of most feeds were somewhat higher than a year earlier, but the increase during November and early December last year was not matched by a comparable increase during the current season. This was partly due to the later harvesting and marketing of the 1954 corn crop which resulted in a later seasonal decline in corn prices. In mid-November the index of prices received by farmers for feed grains was about 2 percent higher than a year earlier and the index of prices paid for feed was about 4 percent higher. The index of wholesale prices of high-protein feeds in November averaged 11 percent above a year earlier.

The price of No. 3 Yellow corn at Chicago in the first half of December averaged about \$1.52 per bushel, a little lower than a year earlier. The larger quantity of lower quality corn coming to market in November and early December was accompanied by a much greater spread between prices of the different grades of corn this year than last. During November and early December, the price of No. 2 Yellow corn at Chicago was 15 to 18 cents per bushel higher than No. 5 compared with a margin of only 2 to 6 cents in that period last year (table 6). The average price received by farmers for corn in mid-November was \$1.37 per bushel, well below the 1954 national average support price of \$1.62, but a little higher than a year earlier. Corn prices have strengthened since mid-November and are expected to advance seasonally as the marketing year progresses. In 1953-54 the price of No. 3 Yellow corn advanced from \$1.42 per bushel in early November to \$1.67 in September.

The price of No. 2 White oats at Minneapolis remained close to last year's level during November and early December, while the price of No. 3 barley was somewhat lower. Oats prices have advanced seasonally since the low level reached last August and the mid-November average price received by farmers was above the support level for the first time since March 1953. Average prices received by farmers for barley and sorghum grain remained below the support level this fall and in November were a little lower than a year earlier.

The price of soybean meal was well above a year earlier in October and through most of November. Soybean meal prices this year remained fairly stable during that period, whereas a year ago they were advancing. By the middle of December the wholesale price of soybean meal at Chicago was a little lower than a year earlier, and it probably will not advance as much during the remainder of the season as in 1953-54. With the much larger supply of soybean meal available and the smaller supplies of cottonseed meal, the unusually wide margin between prices of cottonseed meal and soybean meal which prevailed during much of the 1953-54 season has greatly diminished in recent months. Since October 1 the price of cottonseed meal at Memphis has ranged from \$6 to \$13 per ton below the price of soybean meal at Chicago, compared with a very wide margin of around \$20 to \$30 during much of the 1953-54 season. Soybean meal also was high in relation to most of the other high-protein feeds in 1953-54, but is expected to average relatively lower during the 1954-55 season.

Table 5 .- Corn: Market receipts and terminal stocks, by weeks, October-December, 1953 and 1954

Period 1/ Week ended		1953		1954	
		Market receipts	Terminal market stocks	Market receipts	Terminal market stocks
		<u>1,000 bu.</u>	<u>1,000 bu.</u>	<u>1,000 bu.</u>	<u>1,000 bu.</u>
October	7	7,036	9,365	3,573	18,052
	14	9,485	10,156	3,858	19,162
	21	15,147	11,698	4,987	18,472
	28	16,869	16,233	7,590	19,848
November	4	16,048	23,072	8,796	20,560
	11	13,393	31,412	9,048	24,375
	18	11,276	38,746	14,557	29,122
	25	7,210	41,855	12,521	36,102
December	2	5,797	45,703	11,440	41,009
	9	5,062	46,791	9,068	50,873
	16	4,282	45,596	7,402	55,147
	23	4,163	44,085	6,129	55,918

1/ Market receipts for week ended Thursday and stocks at terminal markets on Saturday within the week.

Table 6 .- Corn, oats, and barley: Prices per bushel at specified markets, by weeks, October-December, 1953 and 1954 1/

Week ended		Corn, Yellow, Chicago						Oats No. 2		Barley No. 3	
		1953			1954			Minneapolis		Minneapolis	
		No.2	No.3	No.5	No.2	No.3	No.5	1953	1954	1953	1954
		<u>Dol.</u>	<u>Dol.</u>	<u>Dol.</u>	<u>Dol.</u>	<u>Dol.</u>	<u>Dol.</u>	<u>Dol.</u>	<u>Dol.</u>	<u>Dol.</u>	<u>Dol.</u>
October	9	1.48	1.47	1.42	1.59	1.57	1.49	.76	.76	1.38	1.36
	12	1.48	1.46	1.42	1.64	1.59	1.45	.77	.77	1.42	1.38
	23	1.47	1.44	1.44	1.59	1.54	1.41	.79	.76	1.43	1.40
	30	1.48	1.46	1.43	1.56	1.51	1.36	.79	.77	1.44	1.38
November	6	1.44	1.42	1.38	1.54	1.50	1.36	.75	.78	1.43	1.37
	13	1.46	1.44	1.42	1.52	1.48	1.35	.78	.80	1.42	1.37
	20	1.49	1.47	1.46	1.51	1.46	1.34	.77	.82	1.45	1.36
	27	1.57	1.54	1.51	1.53	1.48	1.38	.78	.80	1.46	1.37
December	4	1.61	1.59	1.58	1.57	1.53	1.41	.81	.79	1.47	1.31
	11	1.60	1.58	1.57	1.56	1.52	1.40	.80	.79	1.41	1.26
	18	1.58	1.56	1.56	1.54	1.50	1.38	.77	.77	1.43	1.30
	25	1.56	1.53	1.51	1.56	1.54	1.40	.76	.78	1.43	1.32

1/ Weekly average prices of carlot sales.

Large Quantities of Oats,
Barley, and Sorghum Grains
Going under Price Support

Through November 15 farmers had placed record quantities of oats and barley under price support and a much larger quantity of sorghum grains than in the same period of 1953. The 76.8 million bushels of 1954 barley placed under loan and purchase agreement was much larger than the previous record of 49.3 million bushels for the entire 1948-49 marketing year. The quantity of oats placed under price support was slightly above the record of 56 million bushels in 1953-54 and much larger than the amount that had been placed under price support through November 15 last year. Farmers can place these grains under price support through January 31, 1955. The total quantity of these grains placed under price support undoubtedly will far exceed that of any previous season. Through November 15 farmers had placed nearly 43 million bushels of sorghum grains under price support, much larger than in the same period last year, and was nearly equal to the total for the entire 1953-54 season.

Farmers had placed only about a million bushels of corn under price support through November 15 compared with 20.7 million bushels in the same period of 1953. The much smaller quantity in the early part of the season this year is due largely to the lateness of the crop and the lower quality of the corn harvested early this season. The smaller production this year and the fact that many farmers overplanted their acreage allotments and are not eligible for price support also will have a bearing on the total quantity placed under price support. The total is expected to be considerably less than the large quantities of the 1952 and 1953 corn placed under loan and purchase agreement. In those crop years, all farmers were eligible for price supports. Farmers have through May 31, 1955, to place their corn under price support, and loans will mature on July 31, 1955.

Although the total stocks of corn held under price support will continue at a high level during the 1954-55 season, some reduction in the stocks owned by CCC or under loan seems probable. The smaller 1954 crop is expected to fall short of total requirements, resulting in some reduction in the carryover on October 1, 1955. Since the bulk of the carryover stocks was under the price support program, much of this reduction would come from stocks owned by CCC or under loan.

Imports of Oats and Barley Limited
During the 1954-55 Season

The quantity of oats and barley that may be imported into the United States during the October-September 1954-55 feeding season are limited by Presidential proclamation issued under the authority of Section 22 of the Agricultural Adjustment Act, as amended. Under a Proclamation issued October 18, the total quantity of barley hulled and unhulled, including rolled barley, ground barley, and barley malt, entered into this country from October 1, 1954 to September 30, 1955, shall not exceed 27,500,000 bushels. Of this quantity, not more than 27,225,000 bushels shall be imported from Canada and not more than 275,000 bushels from other

Table 7.- Feed grains: Quantities placed under price support,
United States, 1948-54 1/

Feed grain	Total for season						Through Nov. 1,	
	1948	1949	1950	1951	1952	1953	1953	1954
	Million bushels	Million bushels	Million bushels	Million bushels	Million bushels	Million bushels	Million bushels	Million bushels
Corn	550.9	386.7	54.1	26.2	417.2	471.2	20.7	1.0
Oats	23.4	41.0	15.0	13.1	21.7	56.0	38.7	56.4
Barley	49.3	33.0	30.6	16.9	9.9	45.2	27.2	76.8
Sorghum grain	39.8	84.4	60.3	14.9	3.7	45.5	12.8	42.7

1/ Total quantity placed under loan and purchase agreement.

Table 8.- Feed grains: Receipts at primary markets, November,
average 1947-51, 1952, 1953, and August-November 1954

Item	November		1954					
	Average 1947-51	1952	1953	Aug.	Sept.	Oct.	Nov.	
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels
Corn, 12 markets <u>1/</u>	46,130	56,549	48,752	29,466	21,352	21,215	53,794	
Oats, 12 markets <u>1/</u>	7,640	4,735	6,363	26,002	10,638	7,000	7,836	
Barley, 4 markets <u>2/</u>	11,168	3,294	8,687	29,626	17,587	13,361	15,433	

1/ Chicago, Milwaukee, Minneapolis, Duluth, St. Louis, Kansas City, Peoria, Omaha, Indianapolis, Sioux City, St. Joseph, and Wichita.

2/ Minneapolis, Milwaukee, Chicago, and Duluth.

foreign countries. The Canadian Government has agreed to limit shipments of feed barley to the United States to 3.5 million bushels. The remainder of the Canadian quota would be malting barley. The President also made a Proclamation in early October limiting the imports of oats into the United States from all sources to 40 million bushels during this same period. Of this quantity, not more than 39,312,000 bushels shall be imported from Canada and not more than 688,000 bushels from other foreign countries. In each case imports of certified seed were exempted from the regulations.

Record Supply of Oilseed Cake and Meal in Prospect for 1954-55

The supply of oilseed cake and meal available for feeding in 1954-55 is expected to be the largest on record, totaling around 9.2 million tons, about 600,000 tons larger than in 1953-54. The record soybean crop this year and the prospective record production of soybean cake and meal is largely responsible for the big supply of oilseed cake and meal. The quantity of soybean meal available for feeding is expected to be around 6 million tons, or more than a fifth larger than in 1953-54, when it was the smallest in recent years. On the other hand, the quantity of cottonseed cake and meal probably will be around 400,000 tons below the big supply of nearly 2.9 million tons fed in 1953-54. The supplies of linseed and copra meals are expected to be about the same as last year and peanut meal the smallest in recent years.

Total production of the 5 major oilseed meals probably will be around 9.2 million tons. About the same tonnage is expected to be available for feeding, assuming that imports will about offset exports and quantities used for nonfeed purposes. This would be about 600,000 tons larger than the quantity fed in 1953-54. The 1953-54 supply totaled 9,176,000 tons, including production of 8,778,000, carryover of 230,000, and imports of 168,000 tons. After allowing for about 223,000 tons used for nonfood purposes and for export and a carryover of 314,000 tons, 8,639,000 tons remained for livestock feeding. The imports of oilseed cake and meal in 1954-55 probably will be at least as large as last year and the October 1 carryover was considerably larger. Hence the total supply of all oilseed cake and meal for 1954-55 is expected to be around 9.7 million tons, the largest on record and 6 percent larger than in 1953-54.

Supplies of other high-protein feeds are expected to continue close to last year's level, so that the total supply of all high-protein feeds is expected to be a little larger than in 1954-55. The total supply of these feeds is estimated in table 12 in terms of equivalent tonnage of soybean meal. Measured in this way the total tonnage available for feed in 1954-55 is estimated at 11,880,000 tons, about 500,000 tons more than last year. A new series of high-protein-consuming animal units also was developed for the years 1926 to date, to give a better indication of the changes in the livestock consuming the protein feeds. Based on current estimates, the total supply of high-protein feeds in relation to the prospective number of livestock consuming these feeds will be a little larger in 1954-55 than for the past feeding season.

Table 9.- Oilseed cakes and meals: Supply and distribution, United States, year beginning October, 1949-53

Oilseed cake and meal	Supply				Distribution			
	Stocks (Oct. 1)	Production	Imports	Total	Feed	Other uses ^{2/}	Exports	Stocks (Sept. 30)
	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons
1949-50								
Soybean	13	4,586	26	4,625	4,518	25	47	35
Cottonseed	98	2,497	105	2,700	2,382	40	124	154
Linseed	39	689	5	733	670	--	7	56
Peanut	1	139	6	146	94	--	49	3
Copra	7	154	57	218	204	--	0	14
Total	158	8,065	199	8,422	7,868	65	227	262
1950-51								
Soybean	35	5,897	33	5,965	5,718	30	181	36
Cottonseed	154	1,723	91	1,968	1,854	30	13	71
Linseed	56	730	1	787	732	--	29	26
Peanut	3	151	1	155	130	--	24	1
Copra	14	149	66	229	226	--	1	2
Total	262	8,650	192	9,104	8,660	60	248	136
1951-52								
Soybean	36	5,704	24	5,764	5,640	30	42	52
Cottonseed	71	2,524	202	2,797	2,650	30	35	82
Linseed	26	495	23	544	520	--	7	17
Peanut	1	95	5	101	99	--	2	3/
Copra	2	122	104	228	221	--	3/	7
Total	136	8,940	358	9,434	9,130	60	86	158
1952-53								
Soybean	52	5,551	41	5,644	5,510	30	47	57
Cottonseed	82	2,673	136	2,891	2,664	30	55	4/ 142
Linseed	17	458	26	501	478	--	3/	23
Peanut	3/	42	4	46	44	--	3/	2
Copra	7	116	97	220	214	--	0	6
Total	158	8,840	304	9,302	8,910	60	102	4/ 230
1953-54								
Soybean	57	5,051	16	5,124	4,965	30	67	62
Cottonseed	4/ 142	2,974	70	3,186	2,888	30	63	205
Linseed	23	574	1	598	527	--	31	40
Peanut	2	63	1	66	63	--	2	1
Copra	6	116	80	202	196	--	3/	6
Total	4/ 230	8,778	168	9,176	8,639	60	163	314

1/ Stocks at processors' plants.

2/ Estimated quantities of soybean meal used for industrial purposes and cottonseed meal used for fertilizer on farms of cotton growers.

3/ Less than 500 tons.

4/ Includes 29,000 tons owned by CCC and not stored at processors' plants.

Emergency Feed Program--Purchase Orders Approved for
Over a Million Tons of Feed

In late December purchase orders had been approved for well over a million tons of feed grains (or mixed feeds) under the 1954 emergency feed program announced by the President last August. Under the program 944 counties in 18 States had been listed as drought disaster areas by late December. Eligible farmers and ranchers in these counties could purchase CCC grain--corn, oats, barley, or sorghum grain--through established feed and grain dealers, at a reduced cost. The CCC gave an allowance of 60 cents per hundred pounds below the prevailing market price during August and through the first half of September. Since September 15 the allowance has been \$1.00 per 100 pounds. The grains may be purchased as grain or the same quantity in designated feed mixtures containing these grains. Through December 23, orders had been issued to farmers for 1,325,000 tons of these grains.

Hay Supply Generally Ample in the
North; Short in the South

The 1954-55 hay supply, estimated in December at 120 million tons, is about the same as the 1953-54 supply, both in total and per animal unit. Although the total supply also is a little above the 1947-51 average, it is below average in relation to the increased number of roughage-consuming livestock on farms. The upward trend in cattle numbers in recent years has resulted in an increase in livestock consuming hay and other roughages. The estimated number of animal units to be fed in 1954-55 is 9 percent above the 1947-51 average, although about the same as a year earlier.

While hay supplies are generally ample for the country as a whole, there are very marked differences by areas, as was the case in the past two or three years. Hay supplies are about 13 percent above the 1947-51 average in the North Central Region, and surplus supplies in many of the Northern States will be available for shipment to drought areas of the South. Hay production was above average in each of the North Central States except Missouri and Indiana. In Missouri drought sharply reduced yields, and the crop was about one-third below average. Hay production also was considerably below average in a number of the southern States and the supply of hay per animal unit is about one-fourth below the 1947-51 average in the South Central and South Atlantic regions. Hay supplies were average or above in most of the Western States. Wyoming and Colorado were major exceptions, where drought greatly reduced production in 1954.

Under the Federal-State hay program which has been in operation since August, about 149,000 tons of hay were moved into drought areas through December 10. About 56,000 tons were moved by rail and 93,000 tons by truck. Under this program the Federal Government, the railroads, and the truckers have cooperated in moving this hay at greatly reduced transportation rates.

Price Support Announced for 1955
Oats, Barley, and Sorghum Grains

The Department of Agriculture announced on December 13 that price supports for oats, barley, and sorghum grains produced in 1955 will be set at levels reflecting 70 percent of the November 15, 1954 parity prices. The national average supports for the 1955 crops of these grains are as follows: Oats, 61 cents per bushel for No. 3 or better; barley, 94 cents per bushel for No. 2 or better; and sorghum grains, \$1.78 per hundred pounds for No. 2 or better. The supports on these grains will be carried out through the farm storage loans, warehouse loans, and purchase agreements, which will be available from time of harvest of the 1955 crops through January 31, 1956. Oats and barley loans will mature April 30, 1956, in most areas, and grain sorghum loans on March 31, 1956. The national average support prices for 1955 compare with 1954 supports of 75 cents per bushel for oats, \$1.15 per bushel for barley, and \$2.28 per hundred pounds for grain sorghums, all of which were based on 85 percent of the parity price at the time the supports were announced in the fall of 1953.

Corn Acreage Allotments to be in
Effect in 1955; Cross-Compliance
Requirements Removed

The Department of Agriculture announced early in November that corn acreage allotments will be in effect for the 1955 crop and also designated an 805-county commercial producing area in which allotments will be effective. The 805 counties in the commercial corn producing area were in 21 different States compared with 834 counties in 22 States in 1954. The change in the number of counties resulted from the addition of 5 counties and the removal of 34 counties from the commercial area. When corn acreage allotments are in effect, compliance with farm allotments is a condition of eligibility for price supports on corn in the commercial producing area. The 1955 national and county corn acreage allotments will be announced later.

In an announcement on December 13, the Secretary of Agriculture removed the cross-compliance requirements among individual crop acreage allotments which were announced last June. Under the regulations, a producer would have been required to comply with all crop allotments established on his farm for 1955 in order to be eligible for price support on any crop. The removal of this provision means that the only production controls next year will be the required acreage allotments on the individual basic crops and marketing quotas when approved by farmers. Exceeding an allotment for one crop will not affect support eligibility for another, and there will be no limitation on the use of diverted acres as a requirement for price support. For example, a farmer can over-plant his corn acreage allotment and still be eligible for price support on other crops, though he will not be eligible for price supports on corn. However, if he overplants his allotment for any crop he will not be eligible for Agricultural Conservation Program Assistance.

Molasses Feeding Sets
New Record in 1954

The total quantity of molasses fed to livestock in the calendar year 1954 was estimated at 391 million gallons, a new high. While the total supply of industrial molasses for the 1954 calendar year was about 12 percent smaller than a year earlier, the quantity used in the production of alcohol and alcoholic products dropped sharply, leaving more available for livestock feeding. The sharp decline in the use of molasses for alcohol and alcohol products brought the total quantity used for these purposes to the lowest level in recent years. Feeding of molasses, on the other hand, has increased steadily during the past five years and the quantity fed in 1954 was nearly double the 1947-51 average. The quantity of molasses available for feeding is expected to continue large in 1955, probably totaling somewhere near the high level of the past year.

Molasses prices have been comparatively low in relation to corn and most other feeds during the past two years. Throughout 1954 the price of No. 3 Yellow corn at Chicago was equivalent in value to 12 to 14 gallons of blackstrap molasses at New York. Molasses prices were much lower in relation to corn prices than the average for the past 20 years, when the price of corn was equivalent to only 8.1 gallons of molasses.

Table 10.- Industrial molasses: Supply and distribution,
 United States, average 1947-51, annual 1948-54

Calendar year	Supply			Domestic utilization				Exports
	Pro- duction 1/	Imports and inship- ments	Total	Products	Live- stock feed 3/	Other uses 4/	Total 5/	
				of alcohol:				
				plants and:				
				distill- eries 2/				
Mil. gal.	Mil. gal.	Mil. gal.	Mil. gal.	Mil. gal.	Mil. gal.	Mil. gal.	Mil. gal.	
Av. 1947-51	143.4	292.1	435.5	162.1	207.9	59.5	429.5	6.0
1948	147.6	294.3	441.9	149.8	224.6	59.3	433.7	8.2
1949	141.4	300.9	442.3	175.4	200.6	58.5	434.5	7.8
1950	147.4	316.1	463.5	163.0	233.2	58.0	454.2	9.3
1951	152.8	324.8	477.6	161.2	253.2	59.0	473.4	4.2
1952	148.7	385.9	534.6	169.2	300.0	60.0	529.2	5.4
1953	149.2	491.0	640.2	208.4	354.0	63.0	625.4	14.8
1954 6/	149.0	411.0	560.0	89.0	391.0	70.0	550.0	10.0

1/ Includes mainland cane, beet, refiners' blackstrap, and citrus molasses and hydrol. 2/ Ethyl and butyl alcohol, acetone, and distilled spirits. 3/ Residual; includes other minor uses and waste. 4/ Used in production of yeast, citric acid, vinegar, insecticides, etc. Also includes small quantities of edible sirups and molasses. 5/ Not adjusted for changes in stocks, for which data are not available. 6/ Data for 1954 are preliminary estimates.

More Hogs to be Fed in 1954-55;
Cattle Feeding Continues Heavy

The number of grain-consuming livestock to be fed in 1954-55 is expected to be about 3 percent above 1953-54, principally as a result of the increased production of hogs that is now under way. The number of hogs raised and fed in the 1954-55 feeding season probably will be 10 to 12 percent larger than in 1953-54. The 1954 fall pig crop, which will be fed practically entirely from the 1954-55 feed supply, was 16 percent larger than the 1953 crop. The 1954 spring pig crop now being marketed was 12 percent larger than a year earlier and farmers have indicated their intentions to increase the 1955 spring pig crop by about 5 percent over that of 1954.

Recent developments in the cattle feeding season point to another year of heavy grain-feeding of cattle. The total number of cattle to be grain-fattened for market in 1954-55 is expected to be about the same as or slightly higher than a year earlier. The total quantity of grain and other concentrates fed to milk cows in crop reporters' herds on December 1 was slightly below the high level of a year earlier, but about 9 percent above the 1943-52 average for that date. The total number of hens and pullets on farms December 1 was about the same as on that date last year but 6 percent below the 1943-52 average. Production of turkeys and broilers in 1954 was the largest on record. The number of chickens, broilers, and turkeys raised in 1955 is likely to be below the high level in 1954.

HIGH-PROTEIN FEED SUPPLY PER ANIMAL UNIT--A REVISED SERIES 1/

The increasing importance and the growing interest in high-protein feeds in recent years has increased the need for better measures of total supplies and requirements of these feeds. With this in mind, revised series of the total tonnage of high-protein feeds consumed by livestock and the number of animal units consuming these feeds have been computed and are presented in this article. The revised series were developed as a part of a study covering the supply, demand, and price analysis of high-protein feeds.

Short-term series of high-protein feeds consumed by livestock were published in the Feed Situation, October 1954, and earlier issues. The new series presented here materially revises the old series so as to give more accurate measures of the combined tonnage of these feeds and the animal units consuming them. The new series are computed for the years 1926 to date, the same period for which data have been compiled for supplies of total feed concentrates.

Total quantities of high-protein feeds available for livestock feeding are shown in table 11 for the years 1926 to date. These are shown in actual tonnages, which are later weighted to obtain soybean meal equivalent. One of the striking features of the high-protein feed picture has been the marked increase in supplies of soybean meal. Since 1942, it has been by far the most important of the major high-protein feeds. In recent years it has accounted for over 45 percent of the total amount of digestible protein obtained from these feeds.

1/ Information in this article was developed by Gordon A. King in a study financed by Research Marketing Act funds.

Table 11.- High-protein feeds: Estimated use for feed, United States, 1926-54 1/

[illegible]

1/ Estimated use for feed is derived by adding production and imports; deducting exports, utilization for food, and other nonfeed uses, and adjusting for changes in stocks of feeds for which stock data are available.

2/ Data for 1926-43 are unofficial estimates based on livestock slaughter.

3/ Includes dried and concentrated skim milk, buttermilk, and whey manufactured for animal feed.

4/ Dry equivalent of milk, skim milk, buttermilk, and whey fed in liquid form.

5/ Unofficial estimates for 1926-34 based on fiscal year production of malt liquors and distilled spirits.

6/ Preliminary.

7/ Based on indications in December 1954.

The total tonnages of the major protein feeds are combined so as to reflect an equivalent tonnage of 44 percent soybean meal. (See table 12.) The protein content of soybean meal has increased over the past several years with the shift from the crushing of soybeans by the expeller and hydraulic processes to the solvent process. The bulk of the soybean meal sold currently is 44 percent protein.

Supplies of high-protein feeds, expressed in equivalent tonnages of present day soybean meal, are shown in table 12 grouped as oilseed meals, animal-protein, and grain-protein feeds. The individual feeds going into these groups were converted to soybean meal equivalent and then totaled to give the tonnages shown. These conversions were made largely on the basis of digestible protein values taken from Morrison 1/ for the various feeds when fed to livestock other than poultry, and by Ewing 2/ for the digestible protein values when fed to poultry. A single weight for each of the individual feeds was obtained by combining these two protein values on the basis of the quantities of the feeds fed to livestock and poultry in 1949-50, as estimated by Jennings. 3/ The digestible protein content of soybean meal was taken as a base of 1.00 (footnote 1, table 12) and the other feeds were expressed as a ratio of this amount.

Since soybean meal was lower in protein content in earlier years than in recent years, it was necessary to adjust the weights for soybean meal to take this into account. Prior to 1944, the total protein content of soybean meal was generally 41 percent compared with 44 percent at present. The increase in digestible protein content has been a little greater than for total protein. To allow for the increase in digestible protein content, the factor for soybean meal was increased from 90 percent in 1943 and earlier years to 100 percent for 1953. This transition was made by increasing the protein content factor used in these calculations 1 percentage point each year, i.e., from 90 in 1943 to 91 in 1944 and so on, until it reached 100 percent for 1953, when it was assumed that the bulk of the meal was of 44 percent protein content. A ton of soybean meal, current protein content, is taken as a standard ton for high-protein feeds, and the other protein feeds are expressed in terms of equivalent tons of soybean meal. Hence, the tonnages shown are equivalent to present-day soybean meal, which is about 10 percent higher in digestible protein content than that produced in prewar years. It is recognized that some of these feeds have special qualities, which make them more valuable than other feeds of higher protein content. For the purpose of developing this series, however, protein content is given major consideration in deriving the conversion factors.

1/ Feeds and Feeding, A Handbook for the Student and Stockman, F. B. Morrison, Ed. 21 pp. 1114-1131.

2/ Poultry Nutrition, W. R. Ewing, Ed. 4, revised, pp. 60-63.

3/ Feed Consumed by Livestock, Supply and Disposition of Feeds, 1949-50, by States, R. D. Jennings, U. S. Dept. Agr. Stat. Bul. 145.

Table 12.- High-protein feeds: Quantity available for feeding, high-protein feed-consuming animal units, and quantity per animal unit, United States, 1926-1954

Year	Quantity available for feeding (soybean meal equivalent)				Animal units fed annually 2/	Quantity per animal unit
	Oilseed meal	Animal protein	Grain protein	Total 1/		
	1,000 tons	1,000 tons	1,000 tons	1,000 tons	Million units	Pounds
1926	2,112	2,274	434	4,820	82.7	117
1927	1,755	2,214	466	4,435	82.9	107
1928	2,011	2,319	470	4,800	84.0	114
1929	2,070	2,323	436	4,829	86.0	112
1930	1,874	2,341	368	4,583	85.4	107
1931	1,709	2,334	345	4,388	87.6	100
1932	1,653	2,422	392	4,467	90.4	99
1933	1,613	2,396	433	4,442	88.5	100
1934	1,703	2,290	384	4,377	78.4	112
1935	2,224	2,416	519	5,159	82.6	125
1936	2,485	2,414	473	5,372	80.9	133
1937	2,743	2,375	447	5,565	81.5	137
1938	2,807	2,470	461	5,738	86.9	132
1939	2,964	2,522	495	5,981	90.5	132
1940	3,594	2,684	610	6,888	92.5	149
1941	3,830	2,555	829	7,214	99.7	145
1942	5,148	2,522	838	8,508	112.8	151
1943	5,295	2,511	831	8,637	113.7	152
1944	5,350	2,273	933	8,556	106.9	160
1945	5,049	2,123	740	7,912	102.1	155
1946	5,082	2,085	932	8,099	98.2	165
1947	5,389	2,159	758	8,306	93.8	177
1948	6,396	2,246	781	9,423	97.7	193
1949	6,920	2,299	837	10,056	101.1	199
1950	7,797	2,328	1,009	11,134	105.0	212
1951	8,224	2,519	808	11,551	107.2	216
1952	8,073	2,578	759	11,410	108.3	211
1953 3/	7,811	2,780	782	11,373	108.0	211
1954 4/	8,477	2,622	781	11,880	109.4	217

1/ In terms of soybean meal equivalent (44 percent protein content) converted on basis of digestible protein, using the following factors: soybean meal 1943 and earlier years, .90; this factor was increased by one percentage point in each of the succeeding 10 years to allow for increasing protein content, to 1.00 in 1953, which will be used in succeeding years; cottonseed, .8; linseed, .75; peanut, 1.0; copra, .4; tankage and meat scraps, 1.1; fish meal, 1.45; dried milk products, .7; gluten feed and meal, .6; brewers' dried grains, .45; distillers' dried grains, .5.

2/ High-protein feed-consuming livestock. Based on animal units of grain-consuming livestock, excluding horses and mules, adjusted for importance of high-protein feeds in total concentrates fed. The following factors were applied to the grain-consuming livestock animal units: dairy cattle, 1.00; beef cattle, sheep, and poultry, .80; and hogs, .35. For calculation of grain-consuming livestock animal units, see table 1, page 3, Feed Statistics, January 1954, Agricultural Marketing Service.

3/ Preliminary. 4/ Based on indications in December 1954.

A series of high-protein-consuming animal units also was developed for use as a basis for measuring demand and requirements of protein feeds. Grain-consuming animal units, excluding horses and mules, have previously been used as a measure of high-protein-consuming animal units. However, this series, which is based on the relative quantities of grain and other concentrates fed, gives too heavy a weight to some livestock groups and too light to others. Hogs, for example, consume relatively small quantities of the high-protein feeds compared with most of the other livestock groups. The new series of high-protein-consuming animal units shown here is based on the grain-consuming animal units for various livestock groups developed by Jennings ^{1/}, but the various groups were reweighted to reflect their importance as consumers of the protein feeds. Horses and mules consume such small quantities of the high-protein feeds that they were eliminated in computing the protein-consuming series. The 5 remaining groups shown in table 14 were reweighted on the basis of the quantity of high-protein feeds they consumed relative to the consumption of total feed concentrates in 1949-50.

In reweighting the grain-consuming animal units to obtain a series of high-protein-consuming animal units, animal units of dairy cattle are taken as the base or standard, with the grain-consuming animal unit of dairy cattle being weighted by 1.00. Thus the number of animal units of dairy cattle is the same in both series. The grain-consuming animal units of the other groups of livestock are weighted on the basis of the percentage which the high-protein feeds they consumed in 1949-50 were of the total feed concentrates consumed. Of the total feed concentrates fed to dairy cattle, 13.45 percent was made up of these high-protein feeds. (See table 13.) The relative quantities fed to other groups of livestock were all less than for dairy cattle. Taking 13.45 percent for dairy cattle as a base of 100, beef cattle consumed 81.6 percent as much high-protein feed relative to all feed concentrates as dairy cattle, sheep 79.6 percent, hogs 36.3, and poultry 77.5. The rounded values of these percentages were used as weights in converting the grain-consuming animal units of each group of livestock to high-protein-consuming animal units. The weights applied to the grain-consuming animal units of each group were as follows: dairy cattle, 1.00; hogs, 0.35; and beef cattle, sheep, and poultry, 0.80. While these weights may not apply so well to some earlier years because of changes in feeding practices, it is considered desirable that the weights should be most applicable to the postwar years, which are so important in the high-protein feed situation. Grain-consuming animal units computed on the basis of the weights given above are shown in table 14 for recent years.

^{1/} For a detailed description of the method of calculating grain-consuming animal units, see Animal Units of Livestock Fed Annually, 1919-20 to 1948-49, R. D. Jennings, Bureau of Agricultural Economics, F. M. 64 revised, October 1949. For the latest series of animal units by groups of livestock, see Animal Units of Livestock Fed Annually, 1909 to 1953, Agricultural Research Service P.E. 1, May 1954.

Table 13.- High-protein feeds consumed by various groups of livestock as compared with total concentrates fed, United States, 1949-50 ^{1/}

Class of livestock	High-protein feeds (soybean meal equivalent)	All other concentrates	Total concentrates	High-protein feeds as percentage of total concentrates
	1.000 tons	1.000 tons	1.000 tons	Percent
Dairy cattle	2,829	18,204	21,033	13.45
Beef cattle	1,152	9,352	10,504	10.97
Sheep	60	500	560	10.71
Hogs	2,298	44,764	47,062	4.88
Poultry	3,314	28,455	31,769	10.43

^{1/} Compiled from Feed Consumed by Livestock, 1949-50, Statistical Bul. 145, R. D. Jennings, Agricultural Research Service.

Table 14.- Grain-consuming and high-protein-consuming animal units of specified livestock groups, 1945-54

Year beginning October	Dairy cattle	Beef cattle	Sheep	Hogs	Poultry	Total
	1,000 units	1,000 units	1,000 units	1,000 units	1,000 units	1,000 units
	Grain-consuming animal units ^{1/}					
1945	31,271	14,744	1,580	60,723	45,695	154,013
1946	30,614	14,997	1,370	57,782	42,887	147,650
1947	29,365	13,424	1,215	57,616	40,720	142,340
1948	28,594	14,875	1,058	60,907	43,817	149,251
1949	28,654	15,159	998	65,790	45,573	156,174
1950	28,601	15,949	1,001	69,603	48,037	163,191
1951	28,405	17,604	1,101	69,677	49,318	166,105
1952	29,270	20,577	1,120	62,443	49,818	163,228
1953	29,985	19,487	1,087	59,600	50,900	161,059
1954 ^{2/}	29,900	20,000	1,075	66,400	49,300	166,675
	High-protein-consuming animal units ^{3/}					
1945	31,271	11,795	1,264	21,253	36,556	102,139
1946	30,614	11,998	1,096	20,224	34,310	98,242
1947	29,365	10,739	972	20,166	32,576	93,818
1948	28,594	11,900	846	21,317	35,054	97,711
1949	28,654	12,127	798	23,026	36,458	101,063
1950	28,601	12,759	801	24,361	38,430	104,952
1951	28,405	14,083	881	24,387	39,454	107,210
1952	29,270	16,462	896	21,855	39,854	108,337
1953	29,985	15,590	870	20,860	40,720	108,025
1954 ^{2/}	29,900	16,000	860	23,240	39,440	109,440

^{1/} See footnote 1, page 22. ^{2/} Based on indications in December 1954.

^{3/} Computed from grain-consuming animal units using the following weights: Dairy cattle, 1.00; beef cattle, 0.80; sheep, 0.80; hogs, 0.35; poultry, 0.80.

From these two revised series a third series is computed--the supply of high-protein feed available for livestock feeding per animal unit. There is an upward trend in both the supply of high-protein feeds and the livestock consuming these feeds, but the increase in high-protein feed supplies has been much greater than the increase in livestock consuming these feeds, giving a marked upward trend in supplies available per animal unit. This indicates that there has been a general improvement in the protein adequacy of livestock rations over the years.

Supply per animal unit, however, does not tell the whole story. The decline in the protein content of corn during the past 20 years has increased the quantity of protein feeds required to balance livestock rations. 1/ Furthermore, livestock production has increased per animal unit and more grains and other feeds are required per animal to obtain increased production of milk per cow, more eggs per hen, and to provide for increased grain-fattening of cattle. There is still need for further improvement, especially for some classes of livestock and in some areas of the country.

1/ Analyses of the composition of corn reported by F. B. Morrison and the National Research Council indicate that the protein content of corn in recent years has been more than 5 percent lower than in the late 1930's. These studies indicate that the total protein content of corn has declined from 9.4 percent to less than 9 percent and the digestible protein content has declined from 7.0 percent to 6.5 percent.

Table 15.- Feed grains: Stocks by quarters, United States, 1952-54 ^{1/}

Year	January 1	April 1	July 1	October 1
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels
	<u>CORN</u>			
1952	2,357,373	1,511,942	969,646	486,526
1953	2,558,461	1,797,551	1,263,240	768,790
1954	2,676,221	1,987,842	1,403,071	918,241
	<u>OATS</u>			
1952	913,217	563,712	283,155	1,098,967
1953	859,386	503,787	354,191	1,071,161
1954	841,567	494,272	234,310	1,305,604
	<u>BARLEY</u>			
1952	203,411	131,974	73,418	221,262
1953	164,253	97,819	51,344	235,659
1954	177,305	123,462	70,818	354,060
	<u>SORGHUM GRAINS</u>			
1952	148,936	2/	2/	9,935
1953	54,085	2/	2/	7,318
1954	79,159	2/	2/	22,023

^{1/} Stocks in all positions, including stocks on farms, at terminal markets, interior mills, elevators, and warehouses, and Government-owned. ^{2/} Total stocks not reported.

Table 16.- Feed grains: Distribution of October 1 stocks, United States, average 1947-51, annual 1952-54

Year	Farm	Terminal market	Commodity Credit Corporation 1/	Interior mill, elevator, and warehouse	Total
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels
	<u>CORN</u>				
Average					
1947-51	368,726	18,392	127,179	46,489	560,786
1952	171,375	18,186	244,603	52,362	486,526
1953	329,625	9,365	384,400	45,400	768,790
1954	357,950	18,052	467,837	74,402	918,241
Average					
1947-51	1,068,115	25,497	53	49,331	1,142,996
1952	1,000,759	34,204	172	63,832	1,098,967
1953	984,324	27,122	924	58,791	1,071,161
1954	1,191,309	26,377	9,323	78,595	1,305,604
	<u>BARLEY</u>				
Average					
1947-51	174,156	28,472	1,540	68,881	273,049
1952	132,142	20,085	738	68,297	221,262
1953	148,842	14,631	104	72,082	235,659
1954	225,104	23,495	3,732	101,729	354,060
	<u>SORGHUM GRAINS</u>				
1951	7,815	11,355	1,978	16,949	38,097
1952	5,803	2,635	148	1,349	9,935
1953	3,416	1,223	13	2,666	7,318
1954	3,168	5,233	2,261	11,361	22,023

^{1/} In bins or other storage owned or controlled by CCC. Other CCC-owned grain is included in stocks at other positions.

Table 17.- Feed grains: Planted and harvested acreages, United States, average 1947-51, annual 1950-54

Year	Corn, all purposes		Oats		Barley		Sorghums	
	Planted	Harvested	Planted	Harvested	Planted	Harvested	Planted, all purposes	Harvested for grain
	1,000 acres	1,000 acres	1,000 acres	1,000 acres	1,000 acres	1,000 acres	1,000 acres	1,000 acres
Average :								
1947-51 :	84,689	83,164	43,272	38,726	12,029	10,664	13,326	7,642
1950 :	82,858	81,817	45,464	40,733	13,100	11,153	16,050	10,335
1951 :	83,283	80,736	41,682	36,525	10,869	9,436	15,027	8,487
1952 :	82,409	81,099	42,766	38,422	9,359	8,244	12,381	5,061
1953 :	81,730	80,608	43,875	39,217	9,659	8,586	14,651	6,150
1954 1/ :	81,893	79,875	47,284	42,151	14,517	12,994	19,862	10,764

1/ Preliminary.

Table 18.- Feed grains: Production, United States, average 1947-51, annual 1950-54

Year	Corn		Oats	Barley	Sorghum grain	Total 1/
	All purposes	For grain				
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 tons
Average :						
1947-51 :	3,031,081	2,748,469	1,322,593	278,459	153,275	117,006
1950 :	3,057,803	2,760,374	1,410,464	303,533	233,278	122,002
1951 :	2,899,169	2,617,319	1,321,288	254,287	160,195	112,906
1952 :	3,279,403	2,977,243	1,260,127	226,014	83,024	119,734
1953 :	3,192,491	2,876,394	1,209,458	242,544	109,353	117,624
1954 2/ :	2,964,639	2,652,426	1,499,579	370,126	204,087	121,600

1/ Includes production of corn for all purposes. 2/ Preliminary.

Table 19.- Hay supply and disappearance, total and per animal unit, United States, average 1947-51, annual 1950-54

Year beginning May	Production	Farm carry-over May 1	Supply (production plus carry-over)	Disappearance	Supply per animal unit	Disappearance per animal unit	Roughage-consuming animal units fed annually 1/
	1,000 tons	1,000 tons	1,000 tons	1,000 tons	Tons	Tons	Thousands
Average :							
1947-51 :	100,454	14,877	115,331	100,623	1.67	1.46	68,994
1950 :	102,476	14,231	116,707	101,695	1.68	1.47	69,307
1951 :	107,991	15,012	123,003	108,045	1.70	1.50	72,228
1952 :	104,345	14,958	119,303	104,584	1.59	1.39	75,075
1953 :	105,530	14,719	120,249	105,072	1.58	1.38	75,886
1954 2/ :	104,380	15,177	119,557		1.58		75,500

1/ Total roughage-consuming animal units fed annually. For weights see table 68, page 52, Feed Statistics, January 1954. 2/ Preliminary.

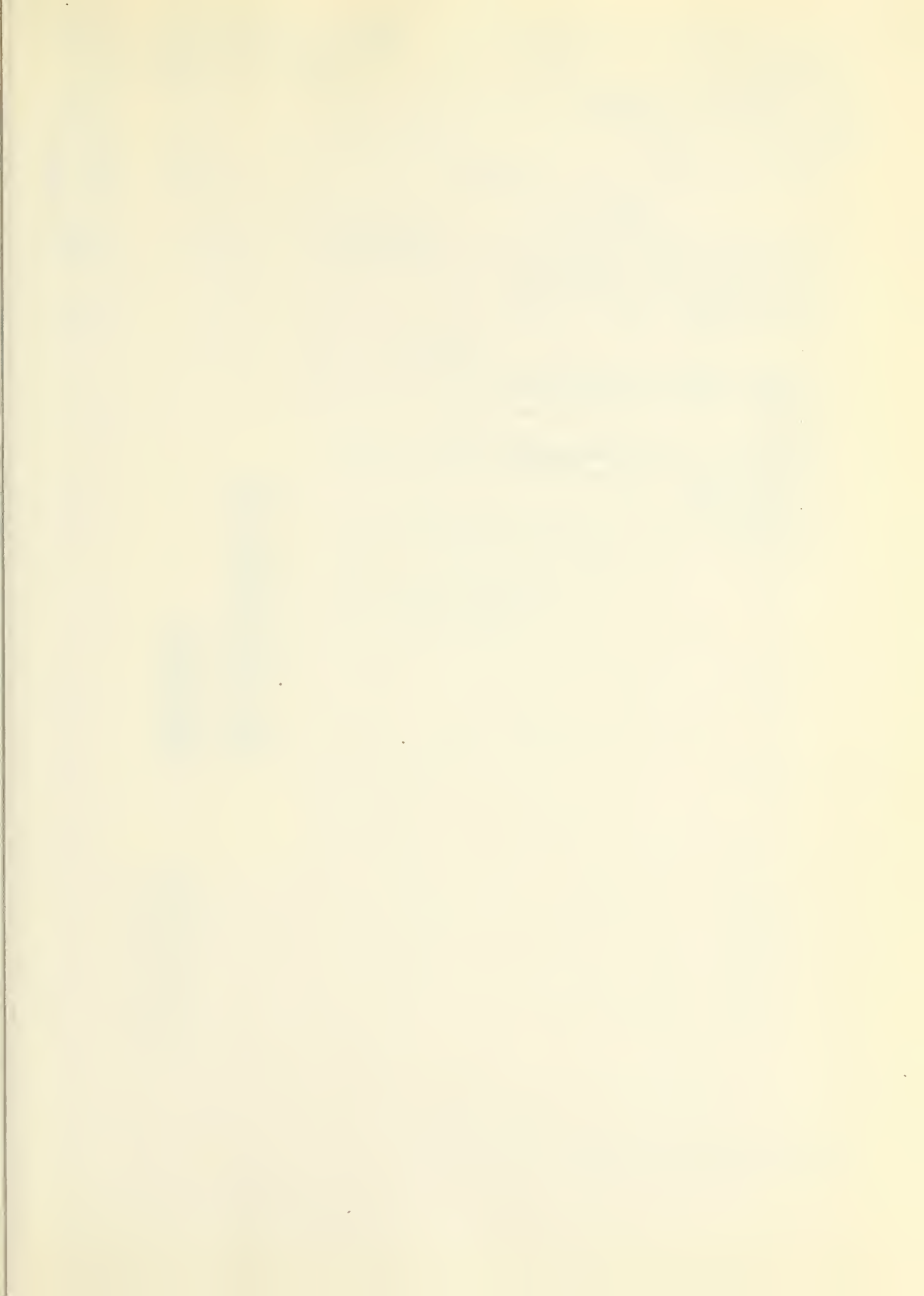
Table 20.- Production, stocks, and foreign trade in byproduct feeds, foreign trade in feed grains, and corn and barley processing
October and November 1954, with comparisons 1/

Commodity	Production					Stocks 2/				
	1953-54:	Oct.	1954			Oct. 1:	Nov. 1:	1954		
	season:	1953	Aug.	Sept.	Oct.	1953	1953	Sept. 1:	Oct. 1:	Nov. 1
	3/									
	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
	tons	tons	tons	tons	tons	tons	tons	tons	tons	tons
Byproduct feeds										
Cottonseed cake and meal	2,974.5	371.3	121.3	260.5	330.4	4/112.7	4/163.8	188.9	205.0	243.4
Soybean cake and meal	5,050.6	505.1	354.5	257.7	499.6	56.8	56.8	150.7	61.6	58.3
Linseed cake and meal	573.7	51.4	63.7	76.9	65.6	23.2	36.7	38.0	39.8	42.5
Peanut cake and meal	63.1	4.3	3.6	2.6	1.7	1.6	2.1	2.0	1.3	.5
Copra cake and meal	116.0	11.5	8.5	10.3	11.6	6.3	6.7	5.0	5.6	6.2
Total	8,777.9	943.6	551.6	608.0	808.9	200.6	266.1	384.6	313.3	350.9
Corn gluten feed and meal	929.4	90.2	76.9	79.2	88.2	5/	5/	5/	5/	5/
Brewers' dried grains	226.5	20.1	20.7	17.9	16.2	7.4	6.8	4.1	6.0	6.2
Distillers' dried grains	245.3	24.7	15.5	16.8	20.6	1.8	3.0	4.1	3.3	3.1
Wheat millfeeds	4,424.8	424.0	380.8	397.1	397.7	5/	5/	5/	5/	5/
Rice millfeeds	273.2	39.1	25.4	26.7	27.0	5/	5/	5/	5/	5/
Alfalfa meal	1,172.9	88.8	164.3	172.8	100.5	321.7	306.5	309.5	377.1	380.5
Fish meal	224.8	21.4	34.3	31.1	17.6	5/	5/	5/	5/	5/
Dry or powdered skim milk	12.2	.8	.6	.4	.4	5/	5/	5/	5/	5/
Foreign trade										
	Imports					Exports				
	1953-54:	Oct.	1954			1953-54:	Oct.	1954		
	season:	1953	Aug.	Sept.	Oct.	season:	1953	Aug.	Sept.	Oct.
	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
	tons	tons	tons	tons	tons	tons	tons	tons	tons	tons
Cottonseed cake and meal	69.8	5.0	2.5	2.0	1.4	63.2	10.5	3.4	28.6	7.3
Soybean cake and meal	15.6	6/	1.1	.8	0	66.5	9.4	2.1	3.5	33.0
Linseed cake and meal	.6	.1	0	0	0	31.0	.1	6.6	10.3	14.8
Peanut cake and meal	.7	0	.4	.1	0	1.4	0	0	0	0
Copra cake and meal	79.8	6.5	7.6	6.2	7.5	.1	0	0	0	0
Total	166.5	11.6	11.6	9.1	8.9	162.2	20.0	12.1	42.4	55.1
Wheat millfeeds	245.0	10.6	16.1	12.2	9.8	1.1	0	0	6/	6/
Fish meal	126.5	8.5	6.7	5.7	4.5	5/	5/	5/	5/	5/
Tariff	18.5	1.4	2.0	1.4	1.5	5/	5/	5/	5/	5/
Feed grains										
Corn, including meal	1,124	83	90	123	105	96,164	13,536	6,912	3,629	4,977
Oats, including oatmeal	79,755	10,190	412	758	1,673	3,446	296	272	345	348
Barley, including malt	38,313	4,541	2,569	2,905	2,931	18,426	3,865	1,809	2,791	3,215
Sorghum grain	5/	5/	5/	5/	5/	15,287	986	3,311	1,828	3,019
Grain processing or use										
	1953-54:	1953			1954					
	season:	Sept.	Oct.	Nov.	July	Aug.	Sept.	Oct.	Nov.	Dec.
	3/									
	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
	bu.	bu.	bu.	bu.	bu.	bu.	bu.	bu.	bu.	bu.
Corn										
Wet-processing	128,198	10,769	12,438	10,042	10,609	10,919	12,163			
Distilled spirits and alcohol	23,190	1,766	2,251	1,296	1,299	1,567	7/1,925			
Barley										
Malt liquors	80,155	7,199	6,586	7,988	7,207	6,005	5,339			
Distilled spirits and alcohol	5,685	432	577	301	297	376	7/489			

1/ Data compiled from reports of the Bureau of the Census, Agricultural Marketing Service, Fish and Wildlife Service of the Department of the Interior, and Price, Waterhouse, and Co., New York.
2/ At processors' plants. 3/ October-September year for all items except oats and barley, which is July-June. 4/ The CCC owned 29,200 tons on October 1, and 27,000 tons on November 1, 1953, not included in stocks at processors' plants. 5/ Not reported. 6/ Less than 50 tons. 7/ Preliminary.

	<u>Issue - Release date</u>
Barley: Supply and distribution	May 21, July 26, Aug. 23, Oct. 21
Byproduct feeds:	
Dried milk products: CCC sales for feed.	May 21, July 26, Aug. 23, Oct. 21
Estimated supply for feed	May 21, Oct. 21, Jan. 4, 1955
High-protein feed supply per animal	Oct. 21, Jan. 4, 1955
Oilseed cake and meal: Supply and distribution	May 21, Oct. 21, Jan. 4, 1955
Production and stocks	Each issue
Canada and Argentina: Feed grain supplies and exports	Apr. 1, May 21, Aug. 23
Corn:	
Acreage allotments	Apr. 1, Jan. 4, 1955
Price support program	Each issue
Sales by Commodity Credit Corporation ...	Apr. 1, May 21, July 26, Oct. 21
Supply and distribution	May 21, July 26, Aug. 26, Oct. 21
Feed grains:	
Acreage and production	Apr. 1, July 26, Aug. 23, Oct. 21, Jan. 4, 1955
Disappearance	Apr. 1, May 21, July 26, Oct. 21, Jan. 4, 1955
Exports and imports	Each issue
Feed concentrate balance and livestock units	May 21, July 26, Aug. 23, Oct. 21, Jan. 4, 1955
Government price support programs	Apr. 1, May 21, Aug. 23, Oct. 21, Jan. 4, 1955
Prices, price ratios, and indexes	Each issue
Price relationships	July 26, Jan. 4, 1955
Receipts at primary markets	Each issue
Sales by farmers	July 26
Supplies	Each issue
Stocks	Apr. 1, May 21, Aug. 23, Jan. 4, 1955
Feed situation by regions	Oct. 21
Government drought relief program	Apr. 1, Aug. 23, Oct. 21, Jan. 4, 1955
Hay: Supplies and disappearance	Each issue
Livestock - feed price relationships	May 21, July 26, Aug. 23, Oct. 21
Livestock numbers and feed requirements ...	Apr. 1, May 21, July 26, Oct. 21
Molasses for feed	Jan. 4, 1955
Oats: Supply and distribution	May 21, July 26, Aug. 23, Oct. 21
Sorghum grains: Supplies and stocks	Apr. 1, Aug. 23, Oct. 21, Jan. 4, 1955

Downward Trend in Corn Acreage More Than Offset by Higher Yield Per Acre	Apr. 1
Review of Feed Grain Price Support Programs for 1948-53	May 21
Provisions of the Agricultural Act of 1954 Relating to Feed Grains	Oct. 21
High-protein Feed Supply Per Animal Unit--A Revised Series	Jan. 4, 1955
Outlook for 1954-55	Oct. 21



U. S. Department of Agriculture
Washington 25, D. C.

Penalty for private use to avoid
payment of postage \$300

OFFICIAL BUSINESS

AMS-FdS-149-12-54

:
: NOTICE :
: If you no longer need this :
: publication, check here ☐ :
: return this sheet, and your :
: name will be dropped from the :
: mailing list. :
: :
: If your address should be :
: changed, write the new address :
: on this sheet and return the whole :
: sheet to: :
: Agricultural Marketing Service, :
: United States Department of :
: Agriculture :
: Washington 25, D. C. :
: